AMENDMENTS TO THE CLAIMS

1. (Canceled)

2. (Currently amended) An implantable device according to claim ~~1~~ 13 wherein said angiogenic layer and said bioprotective membrane are combined to form a composite angiogenic/bioprotective membrane.

3. (Original) The device of claim 2 wherein said composite membrane comprises an ePTFE layer and a biostable layer.

4. (Original) The device of claim 3 wherein said bio stable layer comprises a bio stable urethane and a hydrophilic polymer.

5. (Original) The device of claim 4 wherein said hydrophilic polymer comprises polyvinylpyrrolidone.

6. (Original) The device of claim 5 wherein said polyvinylpyrrolidone is present in said biostable layer at a concentration of not less than 20 weight percent and not more than 35 weight percent.

7. (Original) The device of claim 3 wherein said biostable layer includes a sensor interface.

8. (Original) The device of claim 3 wherein said biostable layer is substantially impermeable to macrophages at said sensor interface.

9. (Original) The device of claim 3 wherein said ePTFE layer includes a tissue interface.

10. (Previously presented)The device of claim 9 wherein said ePTFE layer promotes vascularizton at said tissue interface.

11. (Canceled)

12. (Currently amended) An implantable device according to claim ~~11~~ 13 wherein said interference layer provides a controlled sample volume to said glucose determining member.

13. (Currently amended) ~~An implantable device according to claim 11~~ An implantable device for measuring an analyte in a biological fluid, comprising; a) a housing comprising an electronic circuit; and b) a sensor operably connected to said electronic circuit of said housing, said sensor comprising i) a member for determining the amount of glucose in a biological sample ii) a bioprotective membrane said bioprotective membrane positioned more distal to said housing than said glucose determining member and substantially impermeable to

macrophages, iii) an angiogenic layer, said angiogenic layer positioned more distal to said housing than said bioprotective membrane, and iv) an interference layer between said bioprotective membrane and said glucose determining member, wherein said interference layer further comprises a metal film on the side of said layer distal to said sensor.

14. (Original) An implantable device according to claim 13 wherein said metal film is gold or platinum.

15. (Currently amended) An implantable device according to claim ~~1~~ 13 wherein said sensor is selected from the group consisting of a surface plasmon resonance sensor, a surface acoustic wave sensor, an optical absorbance sensor, a polarized light optical rotation sensor and a fluorescence sensor.

16. (Original) An implantable device according to claim 15 wherein said optical absorbance sensor is an infrared optical absorbance sensor.

17. (Currently amended) An implantable device according to claim ~~1~~ 13 wherein said bioprotective membrane further comprises pores having diameters ranging from about 0.1 micron to about 1.0 micron.

18. (Currently amended) An implantable device according to claim ~~1~~ 13 wherein said bioprotective membrane is a biostable material selected from the group consisting of polyurethane, polytetrafluoroethylene, polypropylene, polyethylene and polysulfone.

19. (Currently amended) An implantable device according to claim ~~1~~ 13 wherein said angiogenic layer is a biostable material selected from the group consisting of hydrophilic polyvinylidene fluoride, mixed cellulose esters, ePTFE, polyester, polyvinyl chloride, polypropylene, polyethylene, polysulfone, polyethersulfone, cellulose acetate, nylon, polycarbonate and polymethylmethacrylate.

20. (Currently amended) ~~An implantable device according to claim 1 further comprising~~ An implantable device for measuring an analyte in a biological fluid, comprising; a) a housing comprising an electronic circuit; and b) a sensor operably connected to said electronic circuit of said housing, said sensor comprising i) a member for determining the amount of glucose in a biological sample ii) a bioprotective membrane said bioprotective membrane positioned more distal to said housing than said glucose determining member and substantially impermeable to macrophages, and iii) an angiogenic layer, said angiogenic layer positioned more

distal to said housing than said bioprotective membrane; and c) a material for securing said device to biological tissue, said securing material associated with said housing.

21. (Original) An implantable device according to claim 20, wherein said securing material is a material selected from the group consisting of nonwoven or woven polyester, polypropylene, polytetrafluoroethylene and expanded polytetrafluoroethylene.

22. (Currently amended) An implantable device according to claim ~~1~~ 13 wherein said housing further comprises an apparatus for transmitting data to a location external to said device.

23. (Original) An implantable device according to claim 22, wherein said data transmitting apparatus comprises a radiotelemetric device.

24-43. (Canceled)

44. (New) An implantable device according to claim 20 wherein said angiogenic layer and said bioprotective membrane are combined to form a composite angiogenic/bioprotective membrane.

45. (New) The device of claim 44 wherein said composite membrane comprises an ePTFE layer and a biostable layer.

46. (New) The device of claim 45 wherein said biostable layer comprises a biostable urethane and a hydrophilic polymer.

47. (New) The device of claim 46 wherein said hydrophilic polymer comprises polyvinylpyrrolidone.

48. (New) The device of claim 47 wherein said polyvinylpyrrolidone is present in said biostable layer at a concentration of not less than 20 weight percent and not more than 35 weight percent.

49. (New) The device of claim 45 wherein said biostable layer includes a sensor interface.

50. (New) The device of claim 45 wherein said biostable layer is substantially impermeable to macrophages at said sensor interface.

51. (New) The device of claim 45 wherein said ePTFE layer includes a tissue interface.

52. (New) The device of claim 51 wherein said ePTFE layer promotes vascularizton at said tissue interface.

53. (New) An implantable device according to claim 20 wherein said sensor is selected from the group consisting of a surface plasmon resonance sensor, a surface acoustic wave sensor, an optical absorbance sensor, a polarized light optical rotation sensor and a fluorescence sensor.

54. (New) An implantable device according to claim 53 wherein said optical absorbance sensor is an infrared optical absorbance sensor.

55. (New) An implantable device according to claim 20 wherein said bioprotective membrane further comprises pores having diameters ranging from about 0.1 micron to about 1.0 micron.

56. (New) An implantable device according to claim 20 wherein said bioprotective membrane is a biostable material selected from the group consisting of polyurethane, polytetrafluoroethylene, polypropylene, polyethylene and polysulfone.

57. (New) An implantable device according to claim 20 wherein said angiogenic layer is a biostable material selected from the group consisting of hydrophilic polyvinylidene fluoride, mixed cellulose esters, ePTFE, polyester, polyvinyl chloride, polypropylene, polyethylene, polysulfone, polyethersulfone, cellulose acetate, nylon, polycarbonate and polymethylmethacrylate.

58. (New) An implantable device according to claim 20 wherein said housing further comprises an apparatus for transmitting data to a location external to said device.

59. (New) An implantable device according to claim 22, wherein said data transmitting apparatus comprises a radiotelemetric device.